

1D

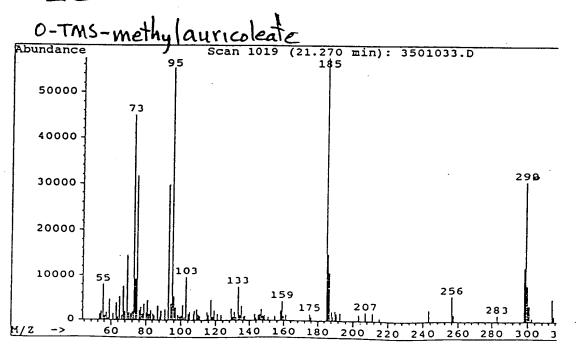


Figure 2.

•

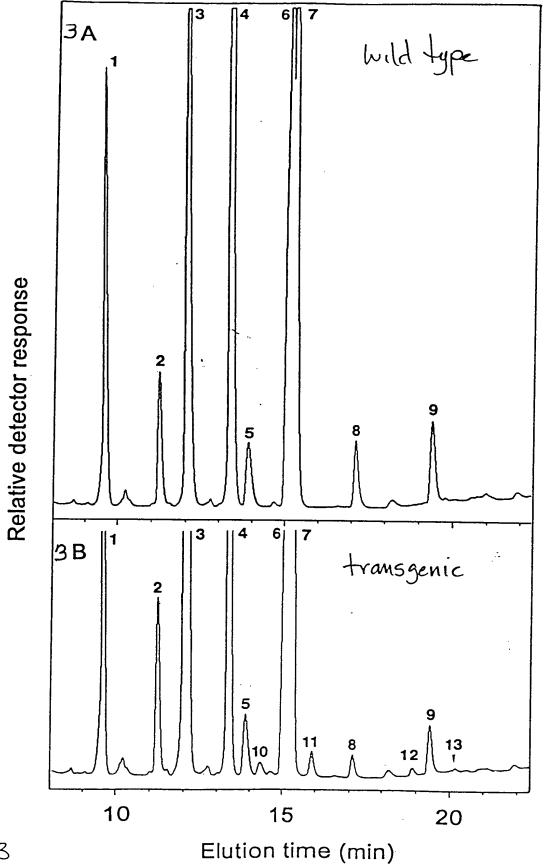
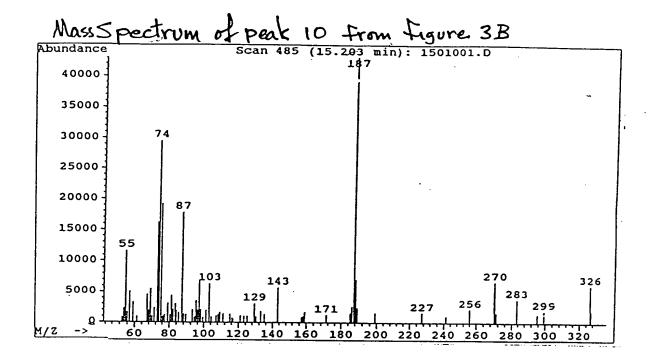
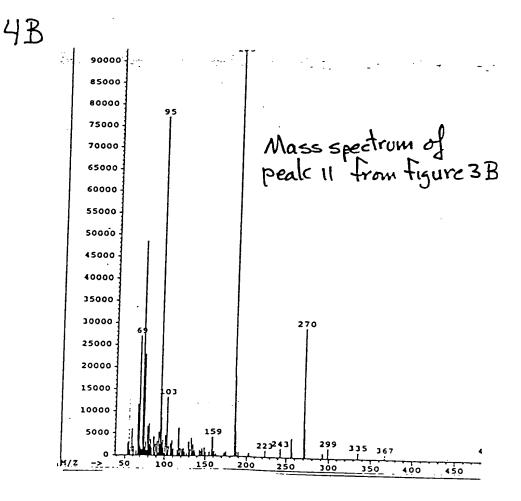
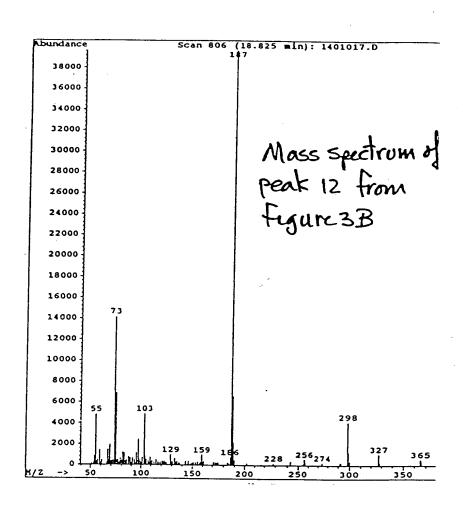
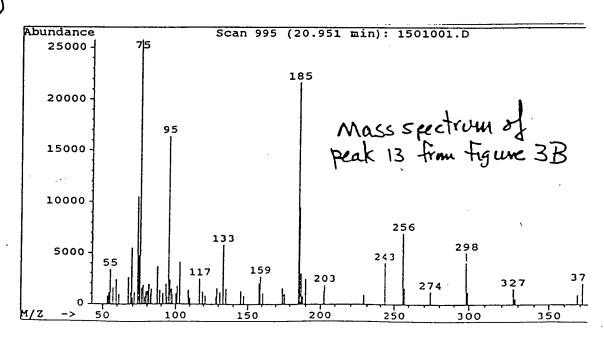


Figure 3









	10	20	30	40	50	60
	TATTGGCACC	GGCGGCACCA	TTCCAACAAT	GGATCCCTAG	AAAAAGATGA	AGTCTTTGTC
	70	80	90	100	110	120
	CCACCTAAGA	AAGCTGCAGT	CANATGGTAT	GTCAAATACC	TCAACAACCC	TCTTGGACGC
	130	140	150	160	170	180
	ATTCTGGTGT	TAACAGTTCA	GTTTATCCTC	GGGTGGCCTT	TGTATCTAGC	CTTTAATGTA
	190	200	210	220	230	240
	TCAGGTAGAC	CTTATGATGG	TTTCGCTTCA	CATTTCTTCC	CTCATGCACC	TATCTTTAAG
	250	260	270	280	290	300
	GACCGTGAAC	GTCTCCAGAT	ATACATCTCA	GATGCTGGTA	TTCTAGCTGT	CTGTTATGGT
	310	320	330	340	350	360
	CTTTACCGTT	ACGCTGCTTC	ACAAGGATTG	ACTGCTATGA	TCTGCGTCTA	CGGAGTACCG
	370	380	390	400	410	420
ū	CTTTTGATAG	TGAACTTTTT	CCTTGTCTTG	GTCACTTTCT	TGCAGCACAC	TCATCCTTCA
14	430	440	450	460	470	480
W	TTACCTCACT	ATGATTCAAC	CGAGTGGGAA	TGGATTAGAG	GAGCTTTGGT	TACGGTAGAC
	490	500	510	520	530	540
id	AGAGACTATG	GAATCTTGAA	CAAGGTGTTT	CACAACATAA	CAGACACCCA	CGTAGCACAC
IJ	550					
H	CAC		t.			
21						

Figure 5 Nucleotide sequence of plesq2

	10	20	30	40	50	60
	TATAGGCACC	GGAGGCACCA	TTCCAACACA	GGATCCCTCG	AAAGAGATGA	AGTATTTGTC
	. 70	80	90	100	110	120
	CCAAAGCAGA	AATCCGCAAT	CAAGTGGTAC	GGCGAATACC	TCAACAACCC	TCCTGGTCGC
	130	140	150	160	170	180
	ATCATGATGT	TAACTGTCCA	GTTCGTCCTC	GGATGGCCCT	TGTACTTAGC	CTTCAACGTT
	190	200	210	220	230	240
	TCTGGCAGAC	CCTACAATGG	TTTCGCTTCC	CATTTCTTCC	CCAATGCTCC	TATCTACAAC
	250	260	270	280	290	300
	GACCGTGAAC	GCCTCCAGAT	TTACATCTCT	GATGCTGGTA	TTCTAGCCGT	CTGTTATGGT
	310	320	330	340	350	360
	CTTTACCGTT	ACGCTGTTGC	ACAAGGACTA	GCCTCAATGA	TCTGTCTAAA	CGGAGTTCCG
	370	380	390	400	410	420
	CTTCTGATAG	TTAACTTTTT	CCTCGTCTTG	ATCACTTACT	TACAACACAC	TCACCCTGCG
	430	440	450	460	470	480
123	TTGCCTCACT	ATGATTCATC	AGAGTGGGAT	TGGCTTAGAG	GAGCTTTAGC	TACTGTAGAC
iji	490	500	510	520	530	540
Ü	AGAGACTATG	GAATCTTGAA	CAAGGTGTTC	CATAACATCA	CAGACACCCA	CGTCGCACAC
H	550					
i I	CACT					
П						

Probe Probe

Plesq3

Plesq2

S L S L

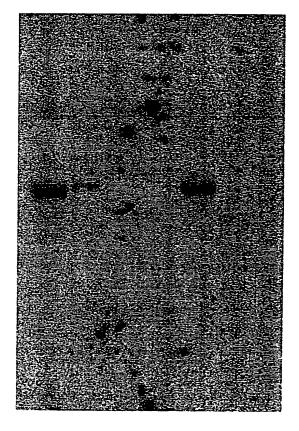


Figure 7

AT GAA GCT TTA TAA GAA GTT AGT TTT CTC TGG TGA CAG AGA AAT TNT 47 GTC AAT TGG TAG TGA CAG TTG AAG CAA CAG GAA CAA GGA TGG TTG 95 GTG NTG ATG CTG ATG TGG TGA TGT GTT ATT CAT CAA ATA CTA AAT ACT 143 ACA TTA CTT GTT GCT GCC TAC TTC TCC TAT TTC CTC CGC CAC CCA TTT 191 TGG ACC CAC GAN CCT TCC ATT TAA ACC CTC TCT CGT GCT ATT CAC CAG 239 AAG AGA AGC CAA GAG AGA GAG AGA GAG AAT GTT CTG AGG ATC ATT GTC 287 TTC TTC ATC GTT ATT AAC GTA AGT TTT TTT TGA CCA CTC ATA TCT AAA 335 ATC TAG TAC ATG CAA TAG ATT AAT GAC TGT TCC TTC TTT TGA TAT TTT 383 10 Met Gly Ala Gly Gly Arg Ile Met Val Thr CAG CTT CTT GAA TTC AAG ATG GGT GCT GGT GGA AGA ATA ATG GTT ACC 431 26 Pro Ser Ser Lys Lys Ser Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys CCC TCT TCC AAG AAA TCA GAA ACT GAA GCC CTA AAA CGT GGA CCA TGT 479 Glu Lys Pro Pro Phe Thr Val Lys Asp Leu Lys Lys Ala Ile Pro Gln 42 GAG AAA CCA CCA TTC ACT GTT AAA GAT CTG AAG AAA GCA ATC CCA CAG 527 58 His Cys Phe Lys Arg Ser Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr CAT TGT TTC AAG CGC TCT ATC CCT CGT TCT TTC TCC TAC CTT CTC ACA 575 Asp Ile Thr Leu Val Ser Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe 74 GAT ATC ACT TTA GTT TCT TGC TTC TAC TAC GTT GCC ACA AAT TAC TTC 623 Ser Leu Leu Pro Gln Pro Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr 90 TCT CTT CTT CCT CAG CCT CTC TCT ACT TAC CTA GCT TGG CCT CTC TAT 671 Trp Val Cys Gln Gly Cys Val Leu Thr Gly Ile Trp Val Ile Gly His 106 TGG GTA TGT CAA GGC TGT GTC TTA ACC GGT ATC TGG GTC ATT GGC CAT 719 122 Glu Cys Gly His His Ala Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr GAA TGT GGT CAC CAT GCA TTC AGT GAC TAT CAA TGG GTA GAT GAC ACT 767 Val Gly Phe Ile Phe His Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp 138 GTT GGT TTT ATC TTC CAT TCC TTC CTT GTC GTC CCT TAC TTC TCC TGG 815 Lys Tyr Ser His Arg Arg His His Ser Asn Asn Gly Ser Leu Glu Lys 154 AAA TAC AGT CAT CGT CGT CAC CAT TCC AAC AAT GGA TCT CTC GAG AAA 863 Asp Glu Val Phe Val Pro Pro Lys Lys Ala Ala Val Lys Trp Tyr Val 170 GAT GAA GTC TTT GTC CCA CCG AAG AAA GCT GCA GTC AAA TGG TAT GTT 911 Lys Tyr Leu Asn Asn Pro Leu Gly Arg Ile Leu Val Leu Thr Val Gln 186 AAA TAC CTC AAC AAC CCT CTT GGA CGC ATT CTG GTG TTA ACA GTT CAG 959

Phe	Ile	Leu	Gly	Trp	Pro	Leu	Tyr	Leu	Ala	Phe	Asn	Val	Ser	Gly	Arg		202
TTT	ATC	CTC	GGG	TGG	CCT	TTG	TAT	CTA	GCC	TTT	AAT	GTA	TCA	GGT	AGA		1007
Pro	Tyr	Asp	Gly	Phe	Ala	Ser	His	Phe	Phe	Pro	His	Ala	Pro	Ile	Phe		218
CCT	TAT	GAT	GGT	TTC	GCT	TCA	CAT	TTC	TTC	CCT	CAT	GCA	CCT	ATC	TTT		1055
Lys	Asp	Arg	Glu	Arg	Leu	Gln	Ile	Tyr	Ile	Ser	Asp	Ala	Gly	Ile	Leu		234
AAA	GAC	CGA	GAA	CGC	CTC	CAG	ATA	TAC	ATC	TCA	GAT	GCT	GGT	ATT	CTA		1103
Ala	Val	Cys	Tyr	Gly	Leu	Tyr	Arg	Tyr	Ala	Ala	Ser	Gln	Gly	Leu	Thr		250
GCT	GTC	TGT	TAT	GGT	CTT	TAC	CGT	TAC	GCT	GCT	TCA	CAA	GGA	TTG	ACT		1151
Ala	Met	Ile	Cys	Val	Tyr	Gly	Val	Pro	Leu	Leu	Ile	Val	Asn	Phe	Phe		266
GCT	ATG	ATC	TGC	GTC	TAT	GGA	GTA	CCG	CTT	TTG	ATA	GTG	AAC	TTT	TTC		1199
Leu	Val	Leu	Val	Thr	Phe	Leu	Gln	His	Thr	His	Pro	Ser	Leu	Pro	His		282
CTT	GTC	TTG	GTA	ACT	TTC	TTG	CAG	CAC	ACT	CAT	CCT	TCG	TTA	CCT	CAT		1247
Tyr	Asp	Ser	Thr	Glu	Trp	Glu	Trp	Ile	Arg	Gly	Ala	Leu	Val	Thr	Val		298
TAT	GAT	TCA	ACC	GAG	TGG	GAA	TGG	ATT	AGA	GGA	GCT	TTG	GTT	ACG	GTA		1295
Asp GAC	Arg AGA	Asp GAC	Tyr TAT	Gly GGA	Ile ATA	Leu TTG	Asn AAC	Lys AAG	Val GTG	Phe TTC	His CAT	Asn AAC	Ile	Thr ACA	Asp GAC		314 1343
Thr	His	Val	Ala	His	His	Leu	Phe	Ala	Thr	Ile	Pro	His	Tyr	Asn	Ala		330
ACA	CAT	GTG	GCT	CAT	CAT	CTC	TTT	GCA	ACT	ATA	CCG	CAT	TAT	AAC	GCA		1391
Met	Glu	Ala	Thr	Glu	Ala	Ile	Lys	Pro	Ile	Leu	Gly	Asp	Tyr	Tyr	His		346
ATG	GAA	GCT	ACA	GAG	GCG	ATA	AAG	CCA	ATA	CTT	GGT	GAT	TAC	TAC	CAC		1439
Phe	Asp	Gly	Thr	Pro	Trp	Tyr	Val	Ala	Met	Tyr	Arg	Glu	Ala	Lys	Glu		362
TTC	GAT	GGA	ACA	CCG	TGG	TAT	GTG	GCC	ATG	TAT	AGG	GAA	GCA	AAG	GAG		1487
Cys	Leu	Tyr	Val	Glu	Pro	Asp	Thr	Glu	Arg	Gly	Lys	Lys	Gly	Val	Tyr	-	378
TGT	CTC	TAT	GTA	GAA	CCG	GAT	ACG	GAA	CGT	GGG	AAG	AAA	GGT	GTC	TAC		1535
Tyr TAT	Tyr TAC	Asn AAC	Asn AAT	Lys AAG	Leu TTA	TGA	GGC	TGA	TAG	GGC	GAG	AGA	AGT	GCA	ATT		384 1583
ATC	AAT	CTT	CAT	TTC	CAT	GTT	TTA	GGT	GTC	TTG	TTT	AAG	AAG	СТА	TGC		1631
TTT	GTT	TCA	ATA	ATC	TCA	GAG	тсс	ATN	TAG	TTG	TGT	ŢCT	GGT	GCA	TTT		1679
								TTA			•	-					1727
GTG	CTG	ССС	AGT	GAA	GAA	CAA	GTT	TAC	GTG	TTT	AAA	ATA	стс	GGA	ACG		1775
								CGG									1823
AAA	CCG	GAT	ATC	CAA	ATT	TCC	AGA	GTA	СТТ	AG							1855

of contract of the second	<u> </u>					· · · · · · · · · · · · · · · · · · ·	
LFFAH12.AMI	1	TO 	1mpgg2()) 40	50-	**.
FAH12.AMI	1	MGGGGRMSTV	TOCHRONIC	ETEALKRO	PCEKPPFTVK	DLKKAIPQHC	50
ATFAD2.AMI	1	MGAGGRMD	TISNNSERK	GSSHLKRA	N PHTKPPFTLO	DLKRAIPPHC	50
BNFAD2.AMI	1	MGAGGRMO	VEIDERNE	ETUTTKR	PCEKPPFSVG	DLKKAIPPHC	50
D2-1.AMI	1	MGAGGRMQ	CCDCDUAVU	EIDNIKK	PCETPPFTVG	ELKKAIPPHC	50
GMFAD2-2.AMI	1	MGAGGR	AND AND AD A	VQGKKPLSK\	PNTKPPFTVG	QLKKA1PPHC	50
ZMFAD2.AMI	1	MGAGGRMTEK	EDEROPOL A	P ACCARNOR	PFEKPQFSLS	QIKKAIPPHC	50
RCFAD2.AMI	1	MGAGGRMTEK		C AIGGAAMQRS	PAEKPPFTLG	QIKKAIPPHC	50
	_	60					50
LFFAH12.AMI	51	FKRSIPRSFS			90	100	
FAH12.AMI	51	FERSFVRSFS	VVAVDVCTCE	CFIIVAINIE	SLLPQPLSTY	LAWPLYWVCQ	100
ATFAD2.AMI	51	FKRSTPRSES	VITEDITIA	LFISLAINFF	PYISSPLS-Y	VAWLVYWLFQ	100
BNFAD2.AMI	51	FKRSIPRSFS	UT TWDTT TA	CFIIVATNYF	SLLPQPLS-Y	LAWPLYWACQ	100
GMFAD2-1.AMI	51	FKRSIPRSFS	VILLADITAND	CFIIVATTYF	PLLPNPLS-Y	FAWPLYWACQ	100
GMFAD2-2.AMI	51	FORSILTSFS	VITUDISHAF	IFY-IATTYF	HLLPQPFS-L	IAWPIYWVLQ	100
ZMFAD2.AMI	51	FORSVLRSFS	VALUETTAP	CLIIVATHIF	HLLPGPLS-F	RGMAIYWAVQ	100
RCFAD2.AMI		FERSVLKSFS	I A AUDITA IN	ALLYFALALI	PALPSPLR-Y	AAWPLYWIAQ	100
	31	110	120				100
LFFAH12.AMI	101					150	
FAH12 AMI	101	GCVLTGIWVI	CHECCHIAEC	DIQWVDDIVG	FIFHSFLLVP	YFSWKYSHRR	150
ATFAD2.AMI	101	GCILTGLWVI	AUECCITIA	EYQLADDIVG	LIVHSALLVP	YFSWKYSHRR	150
BNFAD2.AMI	101	GCVLTGIWVI	AFIECGHAAFS	DYQWLDDTVG	LIFHSFLLVP	YFSWKYSHRR	150
GMFAD2-1.AMI	101	GCVLTGVWVI	AMECGHAAFS	DAĞMTDD.LAĞ	LIFHSFLLVP	YFSWKYSHRR	150
GMFAD2-2.AMI	101	GCLLTGVWVI	AMECGINATIO	KYQWVDDVVG	LTLHSTLLVP	YFSWKISHRR	150
ZMFADZ .AMI	101	GCILTGVWVI	ARECGHAES	DAÖFFDDIAG	LILHSALLVP	YFSWKYSHRR	150
RCFAD2.AMI	101	G	AFS	DYSLLDDVVG	LVLHSSLMVP	YFSWKYSHRR	150
	101	WVM 160					150
LFFAH12.AMI	151		170	180	190	200	
FAH12, AMI	151	HHSNIGSLEK HHSNIGSLER	DEVENDENCE	AVVAIAVIT-	NNPLGRILVL	TVQFILGWPL	200
ATFAD2.AMI	151	HHSNIGSLER	DEALALYSKS	AISWISKIS-	NNPPGRVLTL	AATLLLGWPL	200
BNFAD2.AMI	151	HHSNIGSLER	DEVEVER DE	AIRWIGNIL-	NNPLGRIMML	TVQFVLGWPL	200
GMFAD2-1.AMI	151	HHSWIGST DD	DEVITORDEC	QISSGIASI-	STIFGRIVML	TVQFTLGWPL	200
GMFAD2-2.AMI	151	HHSNIGSLDR	DEVIEWDRORG	KVAWFSKYL-	NNPLGRAVSL	LVTLTIGWPM	200
ZMFAD2.AMI	151	HHSNIGSLER	DEALASKORS	CIRWISKIL-	NNPPGRVLTL	AVTLTLGWPL	200
RCFAD2.AMI	151	HHSNIGSLER	DEALALVEY	CEDEBUCK	NNPVGRVVHI	VVQLTLGWPL	200
	±2±	HHSNUGSLER 210	220				200
LFFAH12.AMI	201	YLAFNVSGRP		230	240	250	
FAH12.AMI	201	YLAFNVSGRP	VDB-EXCITED	PHAPIFKDRE	RLQIYISDAG	ILAVCYGLYR	250
ATFAD2.AMI	201	YLAFNVSGRP	TDR-FACHID	PIGPIFFERE	RLQIYIADLG	IFATTFVLYQ	250
BNFAD2.AMI	201	YLAFNVSGRP	VDCCEACHER	PNAPHYNDRE	RLQIYLSDAG	ILAVCFGLYR	250
GMFAD2-1.AMI	201	YLAFNVSGRP	VDC_EXCUPU	PNAPHINDRE	RLQIYISDAG	LLAVCYGLLP	250
GMFAD2-2.AMI	201	YLALNVSGRP	VDD-FACTUD	PYCDIVCDRE	RLLIYVSDVA	LFSVTYSLYR	250
ZMFAD2.AMI	201	YLATNASGRP	VDD-FACHED	PYCRIVAIDRE	RLQIYISDAG	VLAVVYGLFR	250
RCFAD2.AMI	201	YLAFNVSGRP	VDD_EXCUVD	PYCRIVADRE	RAQIFVSDAG	VVAVAFGLYK	250
	201	260	270	_			250
LFFAH12.AMI	251			280	290	300	
FAH12.AMI	251	YAASQGLTAM	METACABLET	AMERICAL ANTERS	LOUTHPSLPH	YDSTEWEWIR	300
ATFAD2.AMI		ATMAKGLAWV					300
BNFAD2.AMI		YAAAQGMASM YAAYOGYASM					300
C''FAD2-1.AMI		YAAVQGVASM					300
AD2-2.AMI	251	VATLKGLVWL	ACANCADI : 11	VNGFLVTITY	LOUTHFALPH	YDSSEWDWLK	300
ZMFAD2.AMI	251	LAMAKGLAWV	VENTENETE	VNGFLVLITF	LOUTHPALPH	YTSSEWDWLR	300
	2 1 1	LAAAFGVWV	AKAIWABPTI	VNAWLVLITY	LQHTHPSLPH	YDSSEWDWLR	300

Figure 9 A

					. •		
					grade and the		* /* //
RCFAD2 . AMI	251	LATAKGLAWV	VCVYGVPLLV	VNSFLVLITE	LQHTHPALPH	YDSSEWDWLR	300
		310	320	330	340	350	
LFFAH12.AMI	301	GALIVITYDRDY	GILNKVFHNI	TDTHVAHHLF	AFI PHYNAME	ATEAIKPILG	350
FMH12.AMI	301	GAMVITVDRDY	GVLNKVFHNI	ADTHVAHHLF	ALVPHYHAME	ATKAIKPIMG	350
IMA. SC	301	GALATVDRDY	GILNKVFHNI	TDTHVAHHLF	STMPHYNAME	ATKAIKPILG	350
BNFAD2.AMI	301	GALATVDRDY	GILNQGFHNI	TDTHEAHHLF	STMPHYHAME	ATKAIKPILG	350
GMFAD2-1.AMI	301	GALATMORDY	GILNKVFHHI	TDTHVAHHLF	STMPHYHAME	ATNAIKPILG	350
GMFAD2-2.AMI	301	GALATVDRDY	GILNKVFHNI	TDTHVAHHLF	SCMPHYHAME	ATKAIKPILG	350
ZMFAD2.AMI	301	GALATMORDY	GILNRVFHNI	TDTHVAHHLF	STMPHYHAME	ATKAIRPILG	350
RCFAD2.AMI	301	GALATVDRDY	GILNKVFHNI	TDTQVAHHLF	-TMP		350
•		360	370	380	390	400	
LFFAH12.AMI	351	DYYHFDGTPW	YVAMYREAKE	CLYVEPDTER	GKKGVYYYNN	K-L	400
FAH12.AMI	351	EŸYRYDGTPF	YKALWREAKE	CLFVEPDEGA	PTQGVFWYRN	KY	400
ATFAD2.AMI	351	DYYQFDGTPW	YVAMYREAKE	CIYVEPDREG	DKKGVYWYNN	K-L	400
BNFAD2.AMI	351	EYYQFDGTPV	VKAMWREAKE	CIYVEPDRQG	EKKGVFWYNN	KL*	400
GMFAD2-1.AMI	351	EYYQFDDTPF	YKALWREARE	CLYVEPDEGT	SEKGVYWYRN	KY	400
GMFAD2-2.AMI	351	EYYRFDETPF	VKAMWREARE	CIYVEPDQST	ESKGVFWYNN	KL	400
ZMFA <u>D</u> 2.AMI	351	DYYHFDPTPV	AKATWREAGE	CIYVEPE	DRKGVFWYNK	KF*	400
RCFAD2.AMI	351						400
J. Francisco		410	420	430	440	450	
LFFAH12.AMI	401						450
FAH12.AMI	401						450
ATFAD2.AMI	401						450
BNFAD2.AMI	401						450
GMFAD2-1.AMI	401						450
GMFAD2-2.AMI	401						450
ZMFAD2.AMI	401						450
5							
		•					

Molecular weight markers

E H

EHX

3.6 -

1.8 -

1.5 -

